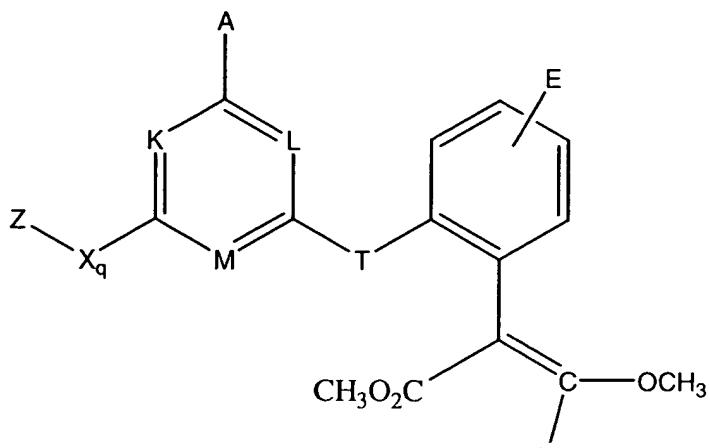


CLAIMS

What is claimed is:

1. A compound of formula (I) or a stereoisomer thereof:



(I)

wherein

X is CH₂O;

A is hydrogen;

E is hydrogen;

q is 1;

any two of K, L and M are nitrogen and the other is CH;

T is oxygen or sulfur;

Z is an optionally substituted phenyl group or an optionally substituted heterocyclyl group selected from the group consisting of pyridinyl, pyrimidinyl, pyrazinyl, pyridazinyl, 1,2,3-triazinyl, 1,2,4-triazinyl, 1,3,5-triazinyl, 1,2,4,5-tetrazinyl, 1,2,3-triazolyl, 1,2,4-triazolyl, imidazolyl, thienyl, furyl, pyrrolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, 1,2,4-thiadiazolyl, 1,3,5-thiadiazolyl, oxadiazolyl, piperidinyl, morpholinyl, pyrrolidinyl and tetrahydrofuranyl, and, where appropriate, the corresponding N-oxides;

the substituents when Z is the substituted phenyl group or the substituted heterocyclyl group are selected from one or more of the following: halo, hydroxy, oxo, mercapto, C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄-alkynyl, C₁₋₄ alkoxy, C₂₋₄ alkenyloxy, C₂₋₄ alkynyloxy, halo(C₁₋₄)alkyl, halo(C₁₋₄)alkoxy, C₁₋₄ alkylthio, C₂₋₄ alkenylthio, hydroxy (C₁₋₄)alkyl, C₁₋₄ alkoxy (C₁₋₄)alkyl, C₃₋₆ cycloalkyl, C₃₋₆ cycloalkyl(C₁₋₄)alkyl, phenyl, phenoxy, C₁₋₄ alkanoyloxy, cyano, isocyano, thiocyanato, isothiocyanato, nitro, -NR'R'', -N₃, -NHCONR'R'', -NR'COR'', CONR'R'', CR'=NOR'', CHR'CO₂R'', CSNR'R'', -CO₂R', -OSO₂R', -SO₂R' -SOR', SO₂OR', SO₂NR'R'', -COR', -OCOR', -CR'=NR'', N=CHNR'R'', NHSO₂R' or N=CR'R'' in which R' and R'' are independently hydrogen, hydroxy, C₁₋₄ alkyl, C₁₋₄ alkoxy, C₁₋₄ alkylthio, C₃₋₆ cycloalkyl, C₃₋₆ cycloalkyl(C₁₋₄)alkyl, C₂₋₄-alkenyl, C₂₋₄ alkenyloxy, phenyl, phenoxy or benzyl, wherein the phenyl, phenoxy and benzyl groups are optionally substituted with halogen, C₁₋₄ alkyl or C₁₋₄ alkoxy, or when Z is the substituted phenyl group or the substituted heterocyclyl group two adjacent substituents of Z join to form a benzene ring.

2. The compound of claim 1, wherein K is nitrogen, L is nitrogen and M is CH.
3. The compound of claim 1, wherein T is oxygen and Z is an optionally substituted heterocyclyl group.
4. The compound of claim 1, wherein K is nitrogen; L is nitrogen; M is CH; T is oxygen; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-

cyano phenyl group; a 1-naphthyl group; a pyridin-2-yl group; a pyridin-3-yl group; a pyridin-4-yl group; a pyrimidin-2-yl group; a pyrimidin-4-yl group; a pyrimidin-5-yl group; a pyrazin-2-yl group; a pyridazin-3-yl group; a pyridazin-4-yl group; a 1,2,4-triazin-6-yl group; a quinolin-2-yl group; a benzthiazol-2-yl group; a thien-3-yl group; a purin-6-yl group; a furan-2-yl group; a 3-methyl-pyridin-2-yl group; a 4-cyanopyrimidin-2-yl group; a 2-CH₃S-pyrimidin-4-yl group; a pyrimidin-2-yl,1-N-oxide group; a C₆F₅ group; or a thien-2-yl group.

5. The compound of claim 1, wherein K is nitrogen; M is nitrogen; L is CH; T is oxygen; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; a pyridin-2-yl group; a pyridin-3-yl group; a pyridin-4-yl group; a pyrimidin-2-yl group; a pyrimidin-4-yl group; a pyrimidin-5-yl group; a pyrazin-2-yl group; a pyridazin-3-yl group; a pyridazin-4-yl group; a 1,2,4-triazin-6-yl group; a quinolin-2-yl group; a benzthiazol-2-yl group; a thien-3-yl group; a purin-6-yl group; a furan-2-yl group; a 3-methyl-pyridin-2-yl group; a 4-cyanopyrimidin-2-yl group; a 2-CH₃S-pyrimidin-4-yl group; a pyrimidin-2-yl,1-N-oxide group; a C₆F₅ group; or a thien-2-yl group.

6. The compound of claim 1, wherein K is CH; M is nitrogen; L is nitrogen; T is oxygen; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-

methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; 2-chloro-6-CF₃ phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; a pyridin-2-yl group; a pyridin-3-yl group; a pyridin-4-yl group; a pyrimidin-2-yl group; a pyrimidin-4-yl group; a pyrimidin-5-yl group; a pyrazin-2-yl group; a pyridazin-3-yl group; a pyridazin-4-yl group; a 1,2,4-triazin-6-yl group; a quinolin-2-yl group; a benzthiazol-2-yl group; a thien-3-yl group; a purin-6-yl group; a furan-2-yl group; a 3-methyl-pyridin-2-yl group; a 4-cyanopyrimidin-2-yl group; a 2-CH₃S-pyrimidin-4-yl group; a pyrimidin-2-yl,1-N-oxide group; a C₆F₅ group; or a thien-2-yl group.

7. The compound of claim 1, wherein K is nitrogen; L is nitrogen; M is CH; T is sulfur; and Z is an unsubstituted phenyl group a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; a pyridin-2-yl group; a pyridin-3-yl group; a pyridin-4-yl group; a pyrimidin-2-yl group; a pyrimidin-4-yl group; a pyrimidin-5-yl group; a pyrazin-2-yl group; a pyridazin-3-yl group; a pyridazin-4-yl group; a 1,2,4-triazin-6-yl group; a quinolin-2-yl group; a benzthiazol-2-yl group; a thien-3-yl group; a purin-6-yl group; a furan-2-yl group; a 3-methyl-pyridin-2-yl group; a 4-cyanopyrimidin-2-yl group; a 2-CH₃S-pyrimidin-4-yl group; a pyrimidin-2-yl,1-N-oxide group; a C₆F₅ group; or a thien-2-yl group.

8. The compound of claim 1, wherein K is nitrogen; L is CH; M is nitrogen; T is sulfur; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl

group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; a pyridin-2-yl group; a pyridin-3-yl group; a pyridin-4-yl group; a pyrimidin-2-yl group; a pyrimidin-4-yl group; a pyrimidin-5-yl group; a pyrazin-2-yl group; a pyridazin-3-yl group; a pyridazin-4-yl group; a 1,2,4-triazin-6-yl group; a quinolin-2-yl group; a benzthiazol-2-yl group; a thien-3-yl group; a purin-6-yl group; a furan-2-yl group; a 3-methyl-pyridin-2-yl group; a 4-cyanopyrimidin-2-yl group; a 2-CH₃S-pyrimidin-4-yl group; a pyrimidin-2-yl,1-N-oxide group; a C₆F₅ group; or a thien-2-yl group.

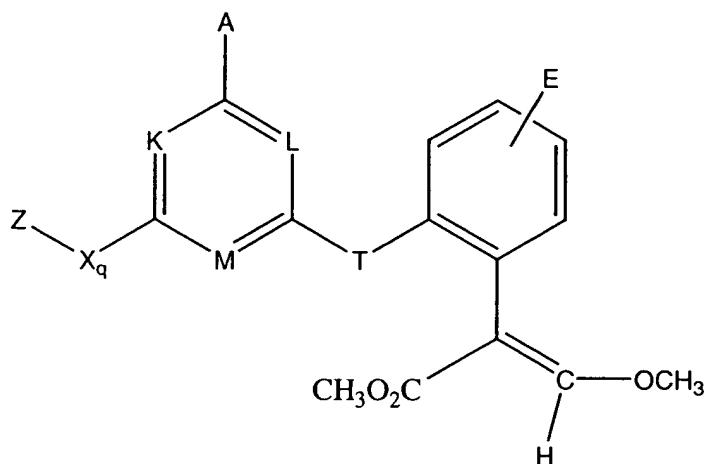
9. The compound of claim 1, wherein K is CH; L is nitrogen; M is nitrogen; T is sulfur; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; a pyridin-2-yl group; a pyridin-3-yl group; a pyridin-4-yl group; a pyrimidin-2-yl group; a pyrimidin-4-yl group; a pyrimidin-5-yl group; a pyrazin-2-yl group; a pyridazin-3-yl group; a pyridazin-4-yl group; a 1,2,4-triazin-6-yl group; a quinolin-2-yl group; a benzthiazol-2-yl group; a thien-3-yl group; a purin-6-yl group; a furan-2-yl group; a 3-

methyl-pyridin-2-yl group; a 4-cyanopyrimidin-2-yl group; a 2-CH₃S-pyrimidin-4-yl group; a pyrimidin-2-yl,1-N-oxide group; a C₆F₅ group; or a thien-2-yl group.

10. A fungicidal composition comprising a fungicidally effective amount of the compound of claim 1 and a fungicidally acceptable carrier or diluent thereof.

11. A method of combating fungi comprising applying to a plant, to a seed of a plant or to a locus of a plant or a seed a fungicidally effective amount of the compound of claim 1.

12. A compound of formula (I) or a stereoisomer thereof:



(I)

wherein

X is CH₂O;

A is hydrogen;

E is hydrogen;

q is 1;

any two of K, L and M are nitrogen and the other is CH;

T is oxygen or sulfur;

Z is an optionally substituted phenyl group; wherein the substituents are selected from one or more of the following: halo, hydroxy, oxo, mercapto, C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl,

C₁₋₄ alkoxy, C₂₋₄ alkenyloxy, C₂₋₄ alkynyloxy, halo (C₁₋₄) alkyl, halo (C₁₋₄) alkoxy, C₁₋₄ alkylthio, C₂₋₄ alkenylthio, hydroxy (C₁₋₄) alkyl, C₁₋₄ alkoxy (C₁₋₄)alkyl, C₃₋₆ cycloalkyl, C₃₋₆ cycloalkyl (C₁₋₄) alkyl, phenyl, phenoxy, (C₁₋₄) alkanoyloxy, cyano, isocyano, thiocyanato, isothiocyanato, nitro, -NR'R'', -N₃, -NHCONR'R'', -NR'COR'', -CONR'R, CR'=NOR'', CHR'CO₂R', CSNR'R', -CO₂R', -OSO₂R', -SO₂R', -SOR', SO₂OR', SO₂NR'R'', -COR', -OCOR', -CR'=NR'', N=CHNR'R'', NSO₂R' or N=CR'R'' in which R' and R'' are independently hydrogen, hydroxy, C₁₋₄, alkyl, C₁₋₄ alkoxy, C₁₋₄ alkylthio, C₃₋₆ cycloalkyl, C₃₋₆ cycloalkyl(C₁₋₄) alkyl, C₂₋₄ alkenyl, C₂₋₄ alkenyloxy, phenyl, phenoxy or benzyl, wherein the phenyl, phenoxy and benzyl groups are optionally substituted with halogen, C₁₋₄ alkyl or C₁₋₄ alkoxy, or two adjacent substituents of Z join to form a benzene ring.

13. The compound of claim 12, wherein K is nitrogen; L is nitrogen; M is CH; T is oxygen; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; or a C₆F₅ group.

14. The compound of claim 12, wherein K is nitrogen; M is nitrogen; L is CH; T is oxygen; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro

phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; or a C₆F₅ group.

15. The compound of claim 12, wherein K is CH; M is nitrogen; L is nitrogen; T is oxygen; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; or a C₆F₅ group.

16. The compound of claim 12, wherein K is nitrogen; L is nitrogen; M is CH; T is sulfur; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; or a C₆F₅ group.

17. The compound of claim 12, wherein K is nitrogen; L is CH; M is nitrogen; T is sulfur; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-

methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; or a C₆F₅ group.

18. The compound of claim 24, wherein K is CH; L is nitrogen; M is nitrogen; T is sulfur; and Z is an unsubstituted phenyl group; a 3-fluoro phenyl group; a 2-methoxy phenyl group; a 4-nitro phenyl group; a 3-bromo phenyl group; a 2-phenoxy phenyl group; a 4-ethoxy phenyl group; a 2,4-dichloro phenyl group; a 2-chloro-3-methoxy phenyl group; a 3-chloro-5-methoxy phenyl group; a 2-(E)-(CH₃O₂C-C=CH-OCH₃) phenyl group; a 3-cyano-4,6-difluoro phenyl group; a 2,6-difluoro phenyl group; a 2-nitro phenyl group; a 2-chloro-6-CF₃ phenyl group; a 2-CF₃ phenyl group; a 2-fluoro-6-chloro phenyl group; a 4-fluoro phenyl group; a 2-cyano phenyl group; a 1-naphthyl group; or a C₆F₅ group.

19. A fungicidal composition comprising a fungicidally effective amount of the compound of claim 12 and a fungicidally acceptable carrier or diluent thereof.

20. A method of combating fungi comprising applying to a plant, to a seed of a plant or to a locus of a plant or a seed a fungicidally effective amount of the compound of claim 12.